

Amendments to the Claims:

This listing of all pending claims (including withdrawn claims) will replace all prior versions, and listings, of claims in the application. Cancelled and not entered claims are indicated with claim number and status only. The claims show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Listing of Claims:

1-4 (Canceled)

5. (Currently Amended) A transformed plant cell containing ~~the~~a recombinant vector according to ~~claim 4~~containing a nucleic acid having a nucleotide sequence selected from the group consisting of:

(i) the nucleotide sequence represented by SEQ ID NO:1 or a nucleotide sequence which is degenerate with respect to SEQ ID NO:1;

(ii) a nucleotide sequence which is identical to SEQ ID NO:1 except that it has deletions, substitutions or additions of one or more bases;

(iii) a nucleotide sequence hybridizable under stringent conditions with a nucleotide sequence complementary to the nucleotide sequence represented by SEQ ID NO:1; and

(iv) a nucleotide sequence having at least 60% nucleotide sequence identity to the nucleotide sequence represented by SEQ ID NO:1;

wherein the nucleotide sequence encodes a protein having activity for vacuolar compartmentalization of proanthocyanidins in plant cells.

6. (Currently Amended) A transgenic plant containing ~~the~~a nucleic acid according to ~~claim 4~~having a nucleotide sequence selected from the group consisting of:

(i) the nucleotide sequence represented by SEQ ID NO:1 or a nucleotide sequence which is degenerate with respect to SEQ ID NO:1;

(ii) a nucleotide sequence which is identical to SEQ ID NO:1 except that it has deletions, substitutions or additions of one or more bases;

(iii) a nucleotide sequence hybridizable under stringent conditions with a nucleotide

sequence complementary to the nucleotide sequence represented by SEQ ID NO:1; and

(iv) a nucleotide sequence having at least 60% nucleotide sequence identity to the nucleotide sequence represented by SEQ ID NO:1;

wherein the nucleotide sequence encodes a protein having activity for vacuolar compartmentalization of proanthocyanidins in plant cells.

7. (Currently Amended) A process for producing ~~flavonoids~~proanthocyanidins which comprises the steps of cultivating the transformed plant cell of claim 5 in a culture medium and harvesting a vacuolarly accumulated ~~flavonoid~~proanthocyanidin from the cultured transformed plant cell or the grown transgenic plant.

8-9. (Canceled)

10. (Currently Amended) A transformed plant cell containing ~~the~~a recombinant vector ~~according to claim 9~~containing a nucleic acid encoding a protein having an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence represented by SEQ ID NO:2;

(b) an amino acid sequence which is identical to SEQ ID NO:2 except that it has deletions, substitutions or additions of one or more amino acids; and

(c) an amino acid sequence that has at least 60% amino acid sequence identity to the amino acid sequence represented by SEQ ID NO:2,

wherein the protein has activity for vacuolar compartmentalization of proanthocyanidins in plant cells.

11. (Currently Amended) A transgenic plant containing ~~the~~a nucleic acid ~~according to claim 2~~encoding a protein having an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence represented by SEQ ID NO:2;

(b) an amino acid sequence which is identical to SEQ ID NO:2 except that it has deletions, substitutions or additions of one or more amino acids; and

(c) an amino acid sequence that has at least 60% amino acid sequence identity to the amino acid sequence represented by SEQ ID NO:2,

wherein the protein has activity for vacuolar compartmentalization of proanthocyanidins in plant cells.

12. (Currently Amended) A process for producing ~~flavonoids~~proanthocyanidins which comprises the steps of cultivating the transformed plant cell of claim 10 in a culture medium and harvesting a vacuolarly accumulated ~~flavonoid~~proanthocyanidin from the cultured transformed plant cell or the grown transgenic plant.

13. (Currently Amended) A process for producing ~~flavonoids~~proanthocyanidins which comprises the steps of growing the transgenic plant of claim 6 and harvesting a vacuolarly accumulated ~~flavonoid~~proanthocyanidin from the cultured transformed plant cell or the grown transgenic plant.

14. (Currently Amended) A process for producing ~~flavonoids~~proanthocyanidins which comprises the steps of growing the transformed plant cell of claim 11 in a culture medium and harvesting a vacuolarly accumulated ~~flavonoid~~proanthocyanidin from the cultured transformed plant cell or the grown transgenic plant.

15-21 (Canceled)